

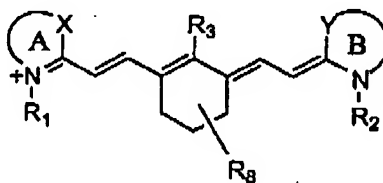
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Attorney Docket No.: 13599-1
2110-045 US D1**IN THE CLAIMS**

Please amend Claims 29-30, 32, 34-35, and 52 as follows:

Claims 1. - 28. (Canceled).

29. (Currently Amended) A use of a fluorescent label in a particle ~~for detecting an~~
 analyte comprising incorporating one or more fluorescent label into a particle, at least one
 having a fluorescent label being a compound of the formula:



wherein:

A and B each independently represent ring structures with sufficient carbon atoms to make up a cyanine nuclei;

X and Y are each independently selected from the group consisting of O, S, NR₉, and CR₉R₁₀;

R₁ and R₂ are each independently selected from the group consisting of H, C₁-C₂₀ alkyl, C₁-C₂₀ haloalkyl, C₁-C₂₀ alkylene, and C₁-C₂₀ haloalkylene;

R₃ is selected from the group consisting of H, halogen, OH, OR₁₁, SR₁₁, NR₁₁R₁₂, C₁-C₆ alkyl, C₁-C₆ alkylene, C₃-C₆ cycloalkyl, C₃-C₆ cycloheteroalkyl, C₃-C₆ cycloalkylene, C₃-C₆ cycloheteroalkylene, phenyl, biaryl, heteroaryl, and heterobiaryl, wherein the C₁-C₆ alkyl, C₁-C₆ alkylene, C₃-C₆ cycloalkyl, C₃-C₆ cycloheteroalkyl, C₃-C₆ cycloalkylene, C₃-C₆ cycloheteroalkylene, phenyl, biaryl, heteroaryl and heterobiaryl groups are unsubstituted or substituted with halogen, OH, C₁-C₄ alkyl, or C₁-C₄ haloalkyl;

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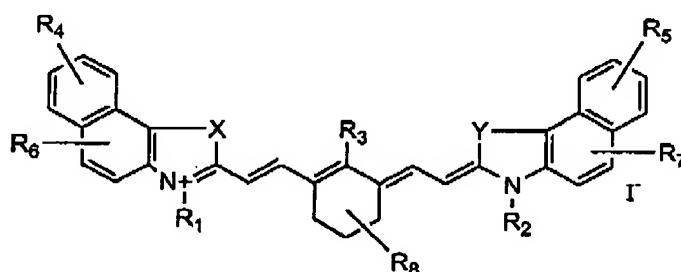
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R_8 is selected from the group consisting of C_1 - C_4 alkyl, and C_1 - C_4 haloalkyl;

R_9 and R_{10} are each independently selected from the group consisting of hydrogen, C_1 - C_4 alkyl, and C_1 - C_4 haloalkyl; and

R_{11} and R_{12} are each independently selected from the group consisting of C_1 - C_6 alkyl, C_3 - C_6 cycloalkyl, phenyl, biaryl, heteroaryl, or heterobiaryl, wherein the C_1 - C_6 alkyl, C_1 - C_6 cycloalkyl, phenyl, biaryl, heteroaryl, and heterobiaryl groups are unsubstituted or substituted with halogen, OH, C_1 - C_4 alkyl, or C_1 - C_4 haloalkyl, or when R_3 represents $NR_{11}R_{12}$, R_{11} and R_{12} may be taken together to form an optionally substituted C_3 - C_6 aliphatic or C_3 - C_6 aromatic heterocyclic ring.

30. (Currently Amended) The use of a fluorescent label according to Claim 29, wherein at least one fluorescent label is a compound of the formula:



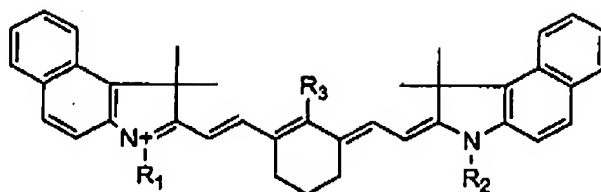
wherein:

R_4 , R_5 , R_6 , and R_7 are each independently selected from the group consisting of hydrogen, halogen, OH, C_1 - C_4 alkyl, or C_1 - C_4 haloalkyl, phenyl, and heteroaryl.

31. (Previously Presented) The use of a fluorescent label according to Claim 31 wherein R_1 and R_2 are identical.

32. (Currently Amended) The use of a fluorescent label according to Claim 31, wherein at least one fluorescent label is a compound of the formula:

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wherein:

R_1 and R_2 are each independently a C_1 - C_{20} alkyl; and

R_3 is H, halogen, or -S-phenyl.

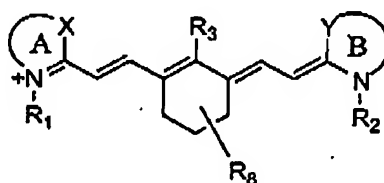
33. (Previously Presented) The use of a fluorescent label according to Claim 29 wherein the ring structures represented by A and B are each independently a benzoindole ring.

34. (Currently Amended) The use of a fluorescent label according to Claim 29 wherein each the fluorescent label has a near-infrared excitation wavelength.

35. (Currently Amended) The use of a fluorescent label according to Claim 29 wherein each the fluorescent label has an emitting light greater than 750 nm.

36. (Previously Presented) A method for incorporating a fluorescent label into a particle comprising:

- a) preparing a suspension of particles; and
- b) adding a solution of two or more fluorescent labels to the suspension, thereby incorporating the fluorescent labels into the particles, where at least one fluorescent label is a compound of the formula:



wherein:

A and B each independently represent ring structures with sufficient carbon atoms to make up a cyanine nuclei;

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X and Y are each independently selected from the group consisting of O, S, NR₉, and CR₉R₁₀;

R₁ and R₂ are each independently selected from the group consisting of H, C₁-C₂₀ alkyl, C₁-C₂₀ haloalkyl, C₁-C₂₀ alkylene, and C₁-C₂₀ haloalkylene;

R₃ is selected from the group consisting of H, halogen, OH, OR₁₁, SR₁₁, NR₁₁R₁₂, C₁-C₆ alkyl, C₁-C₆ alkylene, C₃-C₆ cycloalkyl, C₃-C₆ cycloheteroalkyl, C₃-C₆ cycloalkylene, C₃-C₆ cycloheteroalkylene, phenyl, biaryl, heteroaryl, and heterobiaryl, wherein the C₁-C₆ alkyl, C₁-C₆ alkylene, C₃-C₆ cycloalkyl, C₃-C₆ cycloheteroalkyl, C₃-C₆ cycloalkylene, C₃-C₆ cycloheteroalkylene, phenyl, biaryl, heteroaryl and heterobiaryl groups are unsubstituted or substituted with halogen, OH, C₁-C₄ alkyl, or C₁-C₄ haloalkyl;

R₈ is selected from the group consisting of C₁-C₄ alkyl, and C₁-C₄ haloalkyl;

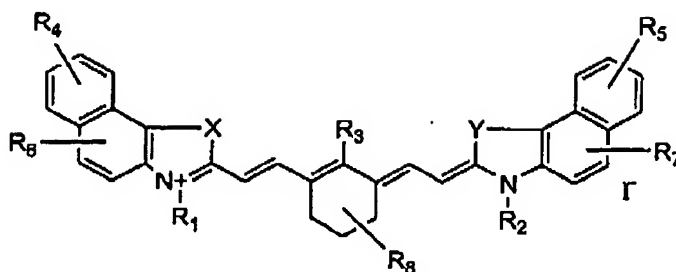
R₉ and R₁₀ are each independently selected from the group consisting of hydrogen, C₁-C₄ alkyl, and C₁-C₄ haloalkyl; and

R₁₁ and R₁₂ are each independently selected from the group consisting of C₁-C₆ alkyl, C₃-C₆ cycloalkyl, phenyl, biaryl, heteroaryl, or heterobiaryl, wherein the C₁-C₆ alkyl, C₁-C₆ cycloalkyl, phenyl, biaryl, heteroaryl, and heterobiaryl groups are unsubstituted or substituted with halogen, OH, C₁-C₄ alkyl, or C₁-C₄ haloalkyl, or when R₃ represents NR₁₁R₁₂, R₁₁ and R₁₂ may be taken together to form an optionally substituted C₃-C₆ aliphatic or C₃-C₆ aromatic heterocyclic ring.

37. (Previously Presented) A method according to Claim 36 wherein the particles are polymeric beads.

38. (Previously Presented) A method according to Claim 36 wherein at least one of the fluorescent labels is a compound of the formula:

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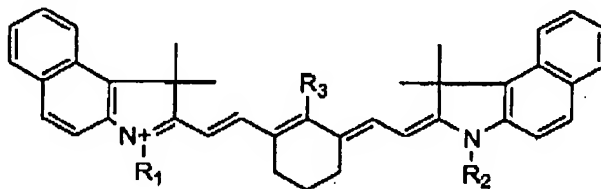
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wherein:

R_4 , R_5 , R_6 , and R_7 are each independently selected from the group consisting of hydrogen, halogen, OH, C_1 - C_4 alkyl, or C_1 - C_4 haloalkyl, phenyl, and heteroaryl.

39. (Previously Presented) A method according to Claim 36 wherein in at least one of the fluorescent labels, R_1 and R_2 are identical.

40. (Previously Presented) A method according to Claim 36 wherein at least one of the fluorescent labels is a compound of the formula:



wherein:

R_1 and R_2 are each independently a C_1 - C_{20} alkyl; and

R_3 is H, halogen, or -S-phenyl.

41. (Previously Presented) A method according to Claim 36 wherein in at least one of the fluorescent labels, the ring structures represented by A and B are each independently a benzimidazole ring.

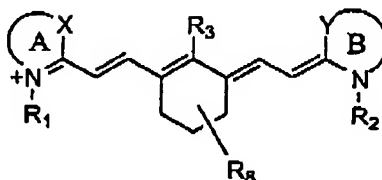
42. (Previously Presented) A method according to Claim 36 wherein at least one of the fluorescent labels has a near-infrared excitation wavelength.

43. (Previously Presented) A method according to Claim 36 wherein at least one of the fluorescent labels has an emitting light greater than 750 nm.

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44. (Previously Presented) A particle comprising a fluorescent label of the formula:



wherein:

A and B each independently represent ring structures with sufficient carbon atoms to make up a cyanine nuclei;

X and Y are each independently selected from the group consisting of O, S, NR₉, and CR₉R₁₀;

R₁ and R₂ are each independently selected from the group consisting of H, C₁-C₂₀ alkyl, C₁-C₂₀ haloalkyl, C₁-C₂₀ alkylene, and C₁-C₂₀ haloalkylene;

R₃ is selected from the group consisting of H, halogen, OH, OR₁₁, SR₁₁, NR₁₁R₁₂, C₁-C₆ alkyl, C₁-C₆ alkylene, C₃-C₆ cycloalkyl, C₃-C₆ cycloheteroalkyl, C₃-C₆ cycloalkylene, C₃-C₆ cycloheteroalkylene, phenyl, biaryl, heteroaryl, and heterobiaryl, wherein the C₁-C₆ alkyl, C₁-C₆ alkylene, C₃-C₆ cycloalkyl, C₃-C₆ cycloheteroalkyl, C₃-C₆ cycloalkylene, C₃-C₆ cycloheteroalkylene, phenyl, biaryl, heteroaryl and heterobiaryl groups are unsubstituted or substituted with halogen, OH, C₁-C₄ alkyl, or C₁-C₄ haloalkyl;

R₈ is selected from the group consisting of C₁-C₄ alkyl, and C₁-C₄ haloalkyl;

R₉ and R₁₀ are each independently selected from the group consisting of hydrogen, C₁-C₄ alkyl, and C₁-C₄ haloalkyl; and

R₁₁ and R₁₂ are each independently selected from the group consisting of C₁-C₆ alkyl, C₃-C₆ cycloalkyl, phenyl, biaryl, heteroaryl, or heterobiaryl, wherein the C₁-C₆ alkyl, C₁-C₆ cycloalkyl, phenyl, biaryl, heteroaryl, and heterobiaryl groups are unsubstituted or substituted with halogen, OH, C₁-C₄ alkyl, or C₁-C₄ haloalkyl, or when R₃ represents NR₁₁R₁₂, R₁₁ and R₁₂ may be taken together to form an optionally

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substituted C₃-C₆ aliphatic or C₃-C₆ aromatic heterocyclic ring.

45. (Previously Presented) A particle according to Claim 44 wherein the fluorescent labels are embedded within the particle.

46. (Previously Presented) A particle according to Claim 44 wherein the fluorescent label is capable of emitting light at a maximum wavelength greater than 750 nm.

47. (Previously Presented) A particle according to Claim 44 wherein the particle comprises two or more than two fluorescent labels in a first combination of relative amounts, the fluorescent labels being capable of being excited by light of a same excitation wavelength and capable of emitting lights at maximum wavelengths, distinguishable from each other, respectively.

48. (Previously Presented) A particle according to Claim 47 wherein the fluorescent labels both have emitting lights greater than 750nm.

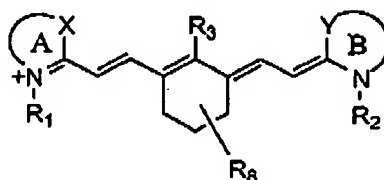
49. (Previously Presented) A particle according to Claim 47 wherein the excitation wavelength is about 780 nm.

50. (Previously Presented) A particle according to Claim 47 wherein the fluorescent labels both have emitting lights greater than 750nm and the maximum wavelengths of the emitting lights of the fluorescent labels differs by at least 20 nm.

51. (Previously Presented) A particle prepared by a process comprising:

a) preparing a particle suspension; and

b) adding a solution of two or more fluorescent labels to the suspension, thereby incorporating the fluorescent labels into the particle, where at least one fluorescent label is a compound of the formula:



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wherein:

A and B each independently represent ring structures with sufficient carbon atoms to make up a cyanine nuclei;

X and Y are each independently selected from the group consisting of O, S, NR₉, and CR₉R₁₀;

R₁ and R₂ are each independently selected from the group consisting of H, C₁-C₂₀ alkyl, C₁-C₂₀ haloalkyl, C₁-C₂₀ alkylene, and C₁-C₂₀ haloalkylene;

R₃ is selected from the group consisting of H, halogen, OH, OR₁₁, SR₁₁, NR₁₁R₁₂, C₁-C₆ alkyl, C₁-C₆ alkylene, C₃-C₆ cycloalkyl, C₃-C₆ cycloheteroalkyl, C₃-C₆ cycloalkylene, C₃-C₆ cycloheteroalkylene, phenyl, biaryl, heteroaryl, and heterobiaryl, wherein the C₁-C₆ alkyl, C₁-C₆ alkylene, C₃-C₆ cycloalkyl, C₃-C₆ cycloheteroalkyl, C₃-C₆ cycloalkylene, C₃-C₆ cycloheteroalkylene, phenyl, biaryl, heteroaryl and heterobiaryl groups are unsubstituted or substituted with halogen, OH, C₁-C₄ alkyl, or C₁-C₄ haloalkyl;

R₈ is selected from the group consisting of C₁-C₄ alkyl, and C₁-C₄ haloalkyl;

R₉ and R₁₀ are each independently selected from the group consisting of hydrogen, C₁-C₄ alkyl, and C₁-C₄ haloalkyl; and

R₁₁ and R₁₂ are each independently selected from the group consisting of C₁-C₆ alkyl, C₃-C₆ cycloalkyl, phenyl, biaryl, heteroaryl, or heterobiaryl, wherein the C₁-C₆ alkyl, C₁-C₆ cycloalkyl, phenyl, biaryl, heteroaryl, and heterobiaryl groups are unsubstituted or substituted with halogen, OH, C₁-C₄ alkyl, or C₁-C₄ haloalkyl, or when R₃ represents NR₁₁R₁₂, R₁₁ and R₁₂ may be taken together to form an optionally substituted C₃-C₆ aliphatic or C₃-C₆ aromatic heterocyclic ring.

52. (Currently Amended) A ~~method~~ particle prepared by a process according to Claim 51 wherein the particle is a polymeric bead.